

Indication

Isaac Williams

Place Street no. 300  
between eighth & ninth

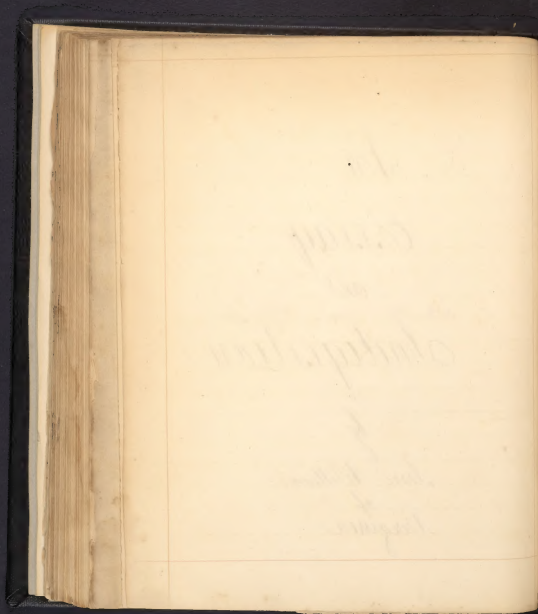
before finally  
admitted March 24th 1825.

James M. McKim  
to the  
Library of the  
University of  
Michigan  
1892

Library  
of the  
University of  
Michigan

An  
Essay  
on  
Indigestion

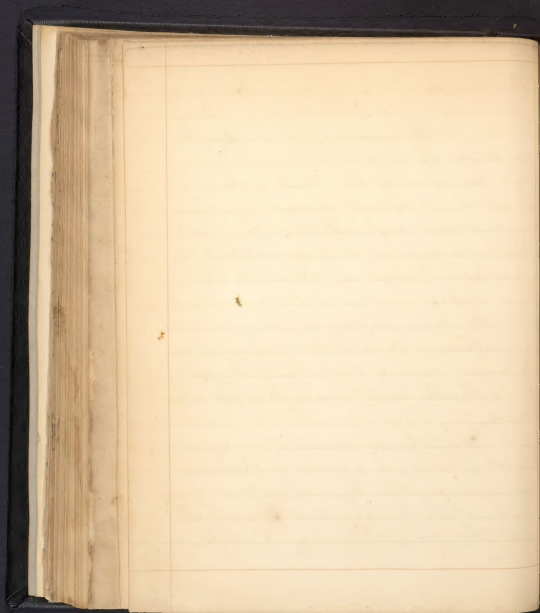
by  
Isaac Williams  
of  
Virginia



Indigestion, is a vitiated condition of that natural and important function of the animal economy, by which it converts foreign and heterogeneous substances, into an uniform and bland fluid, fitted to be converted by the assimilative process into animated and living matter.

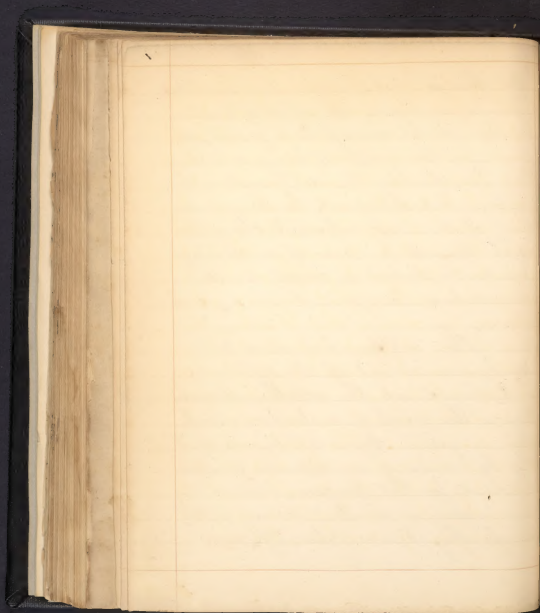
In order properly to understand what indigestion is it will be necessary to take a cursory view of the process of digestion in a healthy condition, and of its dependencies.

Digestion, considered in a general point of view, is a series of operations commencing with the mastication of food in the mouth, and terminating with the complete formation of chyle in



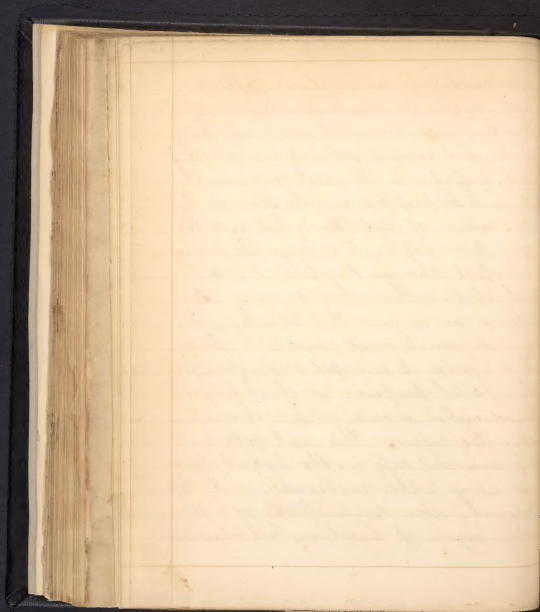
the thoracic duct. where digestion ends  
 assimilation begins. The object of digestion  
 in the animal economy is to furnish ma-  
 terials for the growth of living animals,  
 and for repairing the daily waste of the  
 system, and consequently is the commence-  
 ment of that most important change by  
 which animals by means of an economy  
 peculiar to themselves, convert into their  
 own nature, foreign and inanimate sub-  
 stances.

The articles which are intended  
 for the nourishment of the system are  
 first received into the mouth, where they  
 undergo the process of mastication whereby  
 they are ground down into minute parti-  
 cles, by means of an apparatus provided  
 by nature for that purpose, (which we deem  
 it unnecessary to describe,) during which  
 process they become intimately mixed





and combined with saliva (a fluid with which the mouth is abundantly supplied) and converted into a soft pulpy mass, and rendered, not only susceptible of being pressed into the most convenient form to be propelled into the Stomach by the action of deglutition, but is at the same time fitted, to undergo the further important changes to which it is to be subjected within that organ. And whereas we conceive that it is here that it undergoes its most important change, and receives its principal preparation for its intended purpose, we think proper to be somewhat minute in our observations upon this organ. This most important viscus is not only in the highest degree interesting to the Anatomist, and Physiologist, when contemplated as a primary organ of digestion, but more es-



-specially when it is considered with reference to that commanding influence which it is known to exert over every other part of the human system; and more especially still, when it is recollected that it is through its agency that we are enabled to communicate medicinal influences to every other part of the human frame.

Viewing the Stomach as holding this important rank, among the organs concerned in the animal economy, it may not be amiss here, to glance at some of its outlines. The simplicity of its structure has become almost proverbial, and might well be selected as a striking specimen of that peculiar economy of nature, wherein she seems to delight in effecting great ends by apparently simple and inconsiderable means. The Stomach situated in the abdomen, and occupying



principally the left hypochondriac and the epigastric regions, immediately below the liver; is of considerable length and somewhat of a curved and of a conical shape, larger at one extremity than at the other.

Being situated transversely in the abdominal cavity, it appears to be admirably calculated by nature for the retention of the aliment taken into it, until it shall have undergone those changes which are requisite to fit it for its passage into those organs which may be requisite as the subsidiaries of the Stomach in the great process of digestion. This organ, is composed of four dissimilar laminae, viz. a Peritoneal a Muscular a Nervous and a Villous coat. The latter of which on the present occasion, seems to be more particularly intitled to our consideration, inasmuch as it is the one that



lines the cavity of the stomach, and consequently is more immediately exposed to the various impressions which the multifarious articles taken into this organ are calculated to make. It appears to be a thin, delicate and flexible membrane, possessing great vascularity and sensibility; while it presents an irregular and rugose appearance. From the surface of this coat is effused a peculiar fluid called the gastric liquor. This important fluid, for the secretion of which, the numerous bloodvessels that are directed to the stomach appear to be destined, as to its peculiar characteristics, is very difficult to be understood, for as much as it is almost impracticable to obtain it in a pure state unmixed with other matter. It is said in its nature to be neither purely acid, nor alkaline; but that it





7  
bears a great analogy to saliva. Being abundantly furnished by the Stomach it is generally believed to exert a powerful agency in the great process of digestion. The villous coat of this Organ possessing great flexibility and adhering closely to the aliment introduced into its cavity, by means of which the Stomach being ever in contact with every portion of the surface of the mass it contains, is by it at once excited at every point of its inner surface, to secrete in sufficient quantities, when in a healthy condition the gastric liquor to answer the purposes of dissolving and so far digesting that quantity of aliment which is necessary to be taken in at any one time, within the period of a few hours, completely to convert it into Chyme. In this condition it is by the vermicular motion of the Stomach made to pass the pyloric orifice into



the duodenum. The chyme when it reaches  
this organ consists of two parts one that  
is excrementitious, and one which is  
nutritious; where it meets with the bili-  
ary and pancreatic fluids. But what agency  
these fluids exert in the process of digestion  
is a question that has been not a little con-  
troversial by Physiologists. Doctor Jackson  
in a place which he has written on diges-  
tion contends for no affinity between the  
bile and the excrementitious portion of the  
chyme, by means of which they become  
united together; and we may here add that  
this union probably renders this portion of the  
chyme, less liable to be taken up by the lactals;  
and at the same time facilitates its passage a-  
long the intestinal tube by stimulating its  
internal coat to an increased peristaltic  
motion thereby hastening its evacuation per anum;  
while on the other hand, the pancreatic fluid exerting a



similar attraction for the nutritious portion of the chymous mass and by uniting with it and thereby rendering it more fluid facilitates its reception into the lacteals and its conversion into chyle. The lacteals are a very numerous set of vessels which originate in the small intestines, possessing the power by contraction of propelling forward their contents. They belong properly to the absorbent system, and receive their name from the function they perform; which appears to be that of converting chyme into chyle, and of conveying it into the Thoracic duct, which pours it into the left subclavian vein at the point of its junction with the left internal jugular vein. Chyle is a milklike fluid which is found a few hours after eating in the lacteals and, having a sweetish taste, and being of a white colour, is of a consistency thinner than blood or milk; and



is that fluid substance from which the blood is formed. Having taken this cursory view of the process by which the animal economy converts foreign substances into animal matter; we deem it proper at this stage of our inquiry to take a general view of the ultimate object for which it is designed. The general system when contemplated as a whole may be considered as composed of the several individual systems; all however equally depending upon the process of digestion for their ultimate support. They may be considered in order in the following manner; the digestive apparatus, or system the absorbent system, the circulatory system the respiratory system, the glandular system, the sensitive system, the muscular system the osseous system, the vocal system and the sexual system. Each of these systems





being composed of an assemblage of parts con-  
 -tributing in their use, has intrusted to it the  
 execution of a function of a certain degree  
 of importance. Having now said all we  
 intended to say, as much as we can, on the oc-  
 -casion, we must, respecting digestion in its  
 healthy condition, be pleased to meet it  
 in a disturbed state.

Dyspepsia is a disease to  
 which people of all ages are subject, even from  
 infancy to old age, but we seldom find it  
 distinctly marked until after the age of  
 puberty, and it most commonly occurs be-  
 -tween the ages of thirty and forty. It is  
 generally met with among the studious, the  
 voluptuous, and those who lead sedentary  
 and irregular lives. It generally manifests  
 appearance in a chronic form, continuing  
 a long time without much aggravation, but



its symptoms; hence, it is looked upon by the patients to be a complaint of little consequence; and under this persuasion, neglecting to call in medical aid, he suffers it to go on, while at the same time it is undermining his health, and enfeebling his constitution; when suddenly with an accumulated force it smacks an attack on the system with such violence and at so many different points at the same time, that if life survive the conflict it has frequently sustained so much injury, as to be scarcely ever able to repair it completely, even during a series of years.

Perhaps there is no disease that presents a greater variety of symptoms than the one now under consideration, and one, that is more difficult to be definitively pointed out.

We therefore intend to limit our observations to a few of those symptoms that seem



to be of the most unequivocal character; and agreeably to our present design we deem it proper to treat of them under two views; first, such as appear in the digestive system itself, and secondly, those that appear in other systems of the body which become secondarily affected. Under the first view then we have with a purple tongue, a disagreeable taste in the mouth, ~~an~~ appetite somewhat variable, but not infrequently voracious, an obstinate constipation of the bowels, flatulency, sour eructations occasionally bringing up portions of undigested food, cardialgia, irregular spasms, a gnawing sensation at the Stomach and a constricted pain under the scrobiculus cordis accompanied by a sensation as if there were a drawing from that point, down towards the spine. Under the second view, we will notice some of the

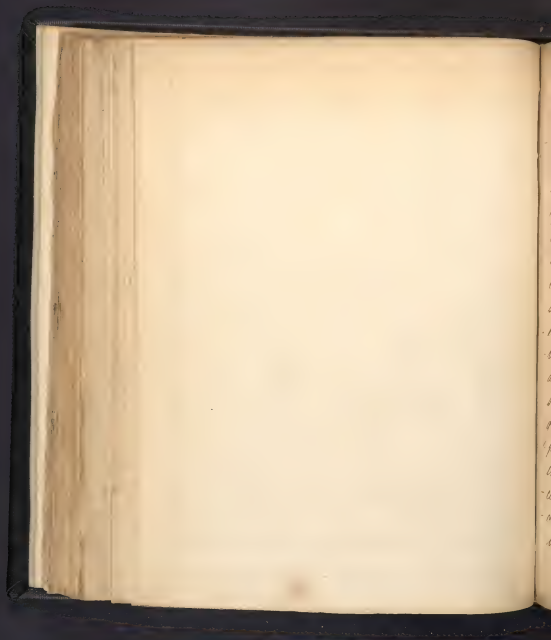


111  
most prominent symptoms occurring in some  
of the other systems viz: an oppressed and  
imperfect respiration, languid and irregu-  
lar circulation, attended by occasional pal-  
pitation of the heart, dizziness and listlessness  
of mind associated with a disposition to  
seriousness and timidity attended not unfre-  
quently with disordered vision and severe  
pains in the head. To these perhaps should  
be added many other symptoms and affections  
which were formerly considered as idiopathic  
diseases but which were properly sympto-  
matic of dyspepsia. We now come to notice  
the causes of this disease, which though they  
are very numerous we think proper on the  
present occasion to confine our remarks to a  
few of the most common. These we shall  
clap under two heads; under the first head,  
we will arrange those that are taken into  
the stomach and come immediately to act

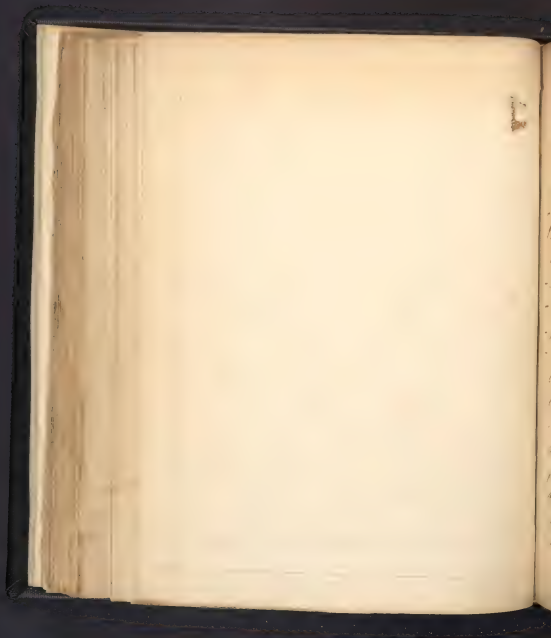




upon that organ; and under the second  
those which make their impression on  
other parts of the general system; and in  
this way operate to weaken the Stomach  
by engrossing too large a proportion of the  
vital energy; whereby the Stomach is denied  
that portion which is indispensably requisite  
to enable it properly to perform its natural  
functions. Under the first head we reckon  
a departure from the simple mode as poin-  
ted out by nature, in eating and drinking;  
in first, in taking food of an improper  
quality, in too large quantity or of too great  
variety. Secondly, the improper use of  
certain narcotic substances, such as ardent  
spirits, Opium, bitters, tea, coffee and tobacco:  
thirdly hot substances taken into the Sto-  
mach whether fluid, or solid; large quan-  
tities of cold liquids taken into the Stomach  
while eating, or when going to bed, as before



breakfast in the morning. Those causes which properly come under our second general head are; intense study, or close application to business unduly pursued, excess in venery, exposure to vicissitudes of temperature particularly the feet. To these may be added strong impressions of every kind long continued on any part of the general system. It may here be proper to say a word on the proximate cause of the disease. It is generally admitted that the secretory action of the Stomach becomes perverted, and that consequently the gastric liquor is secreted in a vitiated condition as respects its quality if it be not furnished in an improper quantity. Doct<sup>r</sup>. Butcher seems to impute this state of the Stomach to debility of the muscular fibres of that organ. It seems to us evident that it is in a very crippled condition but in what its disease precisely consists



it is difficult to say. But when considering  
 the various impressions which the stimulating  
 substances above mentioned are calculated to  
 make upon the internal surface of the Stomach  
 and from our observations made on this sub-  
 -ject derived from other sources we would  
 conjecture that the villous coat of that  
 organ becomes somewhat altered in its struc-  
 -ture perhaps thickened and contracted, where-  
 -by it loses its flexibility, and its villous ap-  
 -pearance and in this way materially contri-  
 -butes towards effecting a vitiated condition of  
 the gastric liquor. The Stomach while in  
 this diseased condition is unable to perform  
 its natural functions, but in as much as there  
 are generally spreading the usual quantities of  
 food taken into it, it engrosses the energies  
 of other parts of the system and in this way  
 predisposes them to disease, while at the same  
 time in consequence of imperfect digestion it



withholds from them the quantity or suitable quality of nourishment which is their natural stimulus and support.

We now come to make some remarks on the treatment of this disease, which we purpose doing in a very general way by pointing out some of the most prominent indications which we consider to be essentially of two characters and requiring not unfrequently very different treatment. The indications of the first character call for such remedies as are calculated for relieving or palliating the most distressing of those symptoms which under our present view as occurring in other systems or parts of the animal system; together with those that occasionally occur in the Stomach itself; such as gastrodynia spasms &c. if the disease have already reached this state of violence; these are very various, sometimes Stimulants





Sometimes antispasmodics, bloodletting &c. the indications of the second character, require means to eradicate the disease from the Stomach itself, by overcoming the unhealthy action, and destroying the morbid associations of that organ; and thereby restore it again to a discharge of its natural functions, in a healthy condition. To effect this, we shall notice three indications: the first is, to evacuate the *Prima via*, which should be commenced by an Emetic. For this purpose the *Spicocucurbita* has been generally preferred; indeed, it has been thought to exert a specific salutary effect in this case; and as it is a very mild and safe medicine, there can be no possible objection to it. The Emetic Taster also, appears to have special claims to our attention in this case, as it will not only evacuate the Stomach, thoroughly and with safety, of its contents when properly



administered, but will at the same time by making a strong impression on that organ, contribute much to the severance of those morbid concatenations which it has established.

This being done, our attention should next be directed to the evacuation of the lower bowels, which should be effected by gentle purgatives. The Rhubarb answers for this purpose very well, and is preferred by some; but what perhaps is still better is a combination of the Calomel magnesia and the Sac Sulfuris in equal quantities. One or two drachms should be taken at a dose to be continued so as to keep the bowels in a soluble condition.

The second indication, is to correct acidity, which is not unfrequently very troublesome in this disease; In order to effect this the various Antacids and Absorbents have been resorted to. But we



deem it necessary to name only two articles, Magnesia, and the Carb. of Potash. To these perhaps, we should add, the celebrated remedy recommended by Doctor. Physick which is prepared from hickory white soil &c.

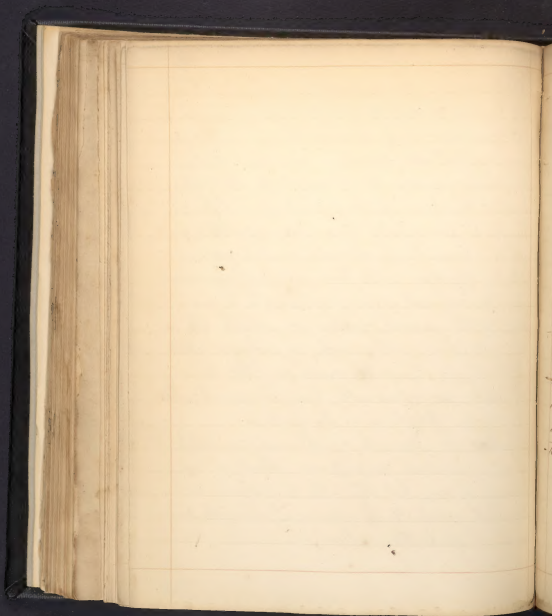
The third indication is, to give tone to the Stomach. To answer this indication, the various bitters and astringents have been resorted to. The articles that have been generally employed for this purpose, are, the quassia, the gentian, the columbo &c. of the vegetable kingdom; and of the mineral, the various chalybeate preparations, the Regule of Wismuth &c. The proper employment of these, has been found to do good in most cases, and has no doubt proved effectual in many; but they nevertheless are frequently found to fail of success unless there be in the part of the patient a strict observance of a well regulated diet. Perhaps there are few diseases



that require the patient to be more particular in regard to his diet and habits of life, than the one now under consideration. And when we recollect the crippled condition of the Stomach, we are led to conclude that this part of the cure of dyspepsia should be attempted principally by a well regulated and at the same time, nutritious and generous diet; together with tonic impressions made on the external surface, calculated to give tone to the general system, in which the Stomach participates; such, as exercise, cold bathing, frictions &c. rules for this course of tonics are admirably laid down in <sup>the</sup> 2. Vol. of Doctor. Chapman's Therapeutics.

Thus the Stomach by obtaining a respite from medicinal impressions which it has already become but ill able to sustain, is permitted gradually to recover its strength, and with it its healthy action.

Me-





We now deem it proper to conclude what we have to say on this subject by making some prophylactic remarks, which we cannot do better than in the words of Doctor.

Hamilton, in his work on purgatives.

"It may be proper on some occasions" says the Doctor. "to counsel the valitudinarian to forsake the haunts and habits of fashionable life; to quit the crowded city, alluring amusements, and various occupations carried on in airless, or even in tainted rooms; to shun luxurious tables, indolence, and late hours; to retrace the steps by which he has deviated from simple nature, and to court the country, pure air, and simple diet."

